Lake Erie Harmful Algal Bloom Bulletin

29 August, 2019, Bulletin 18

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Recent satellite imagery (8/28) shows the bloom extending from Maumee Bay north along the Michigan coast, to Brest Bay, east along the Ohio coast to the Marblehead Peninsula, and offshore through the Bass Islands. Observed conditions (8/26-28) promoted southeast transport and mixing of surface bloom concentrations, which are no longer visible near the Ontario coast. Sampling has been delayed this week due to weather, but measured toxin concentrations may still exceeding the recreational threshold where the bloom is most dense (appearing green from a boat). *Keep pets and yourself out of the water in areas where scum is forming*. The persistent cyanobacteria bloom in Sandusky Bay continues. No other blooms are present in Lake Erie.

Forecasts

Winds (5-26 kn) forecast today through Sunday (8/29-9/1) will promote mixing and northern transport of surface *Microcystis* concentrations along the Michigan coast. -Davis, Keeney

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: *http://publicapps.odh.ohio.gov/beachguardpublic/*
Ohio EPA's site on harmful algal blooms: *http://epa.ohio.gov/HAB-Algae*
NOAA's GLERL provides additional HAB data here: *http://www.glerl.noaa.gov/res/HABs_and_Hypoxia*

The images below are "GeoPDF". Please visit https://go.usa.gov/xReTC for instructions on viewing longitude and latitude.

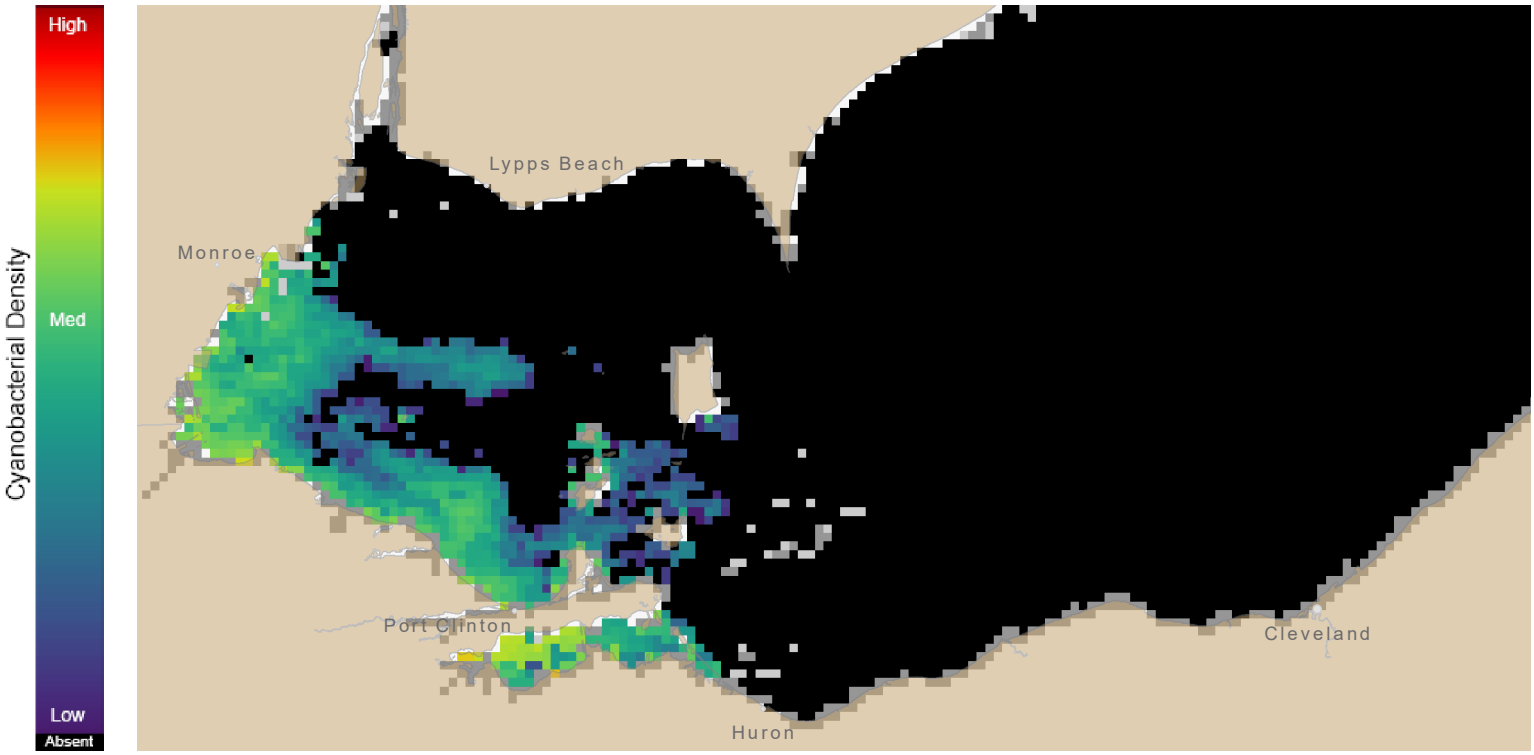


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 28 August, 2019 at 11:11 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

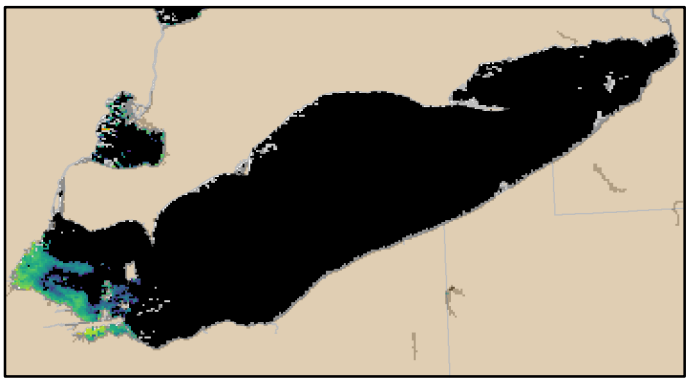
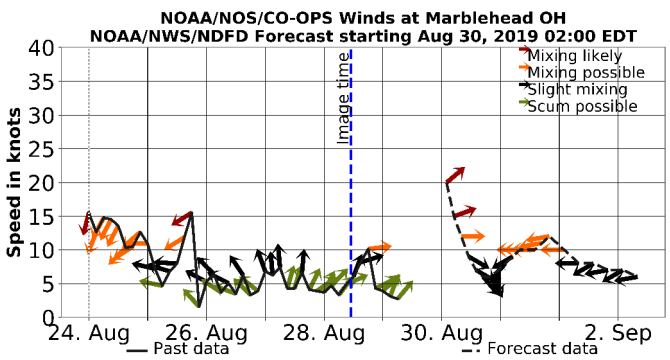


Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 28 August, 2019 at 11:11.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: https://tidesandcurrents.noaa.gov/hab/lakeerie.html

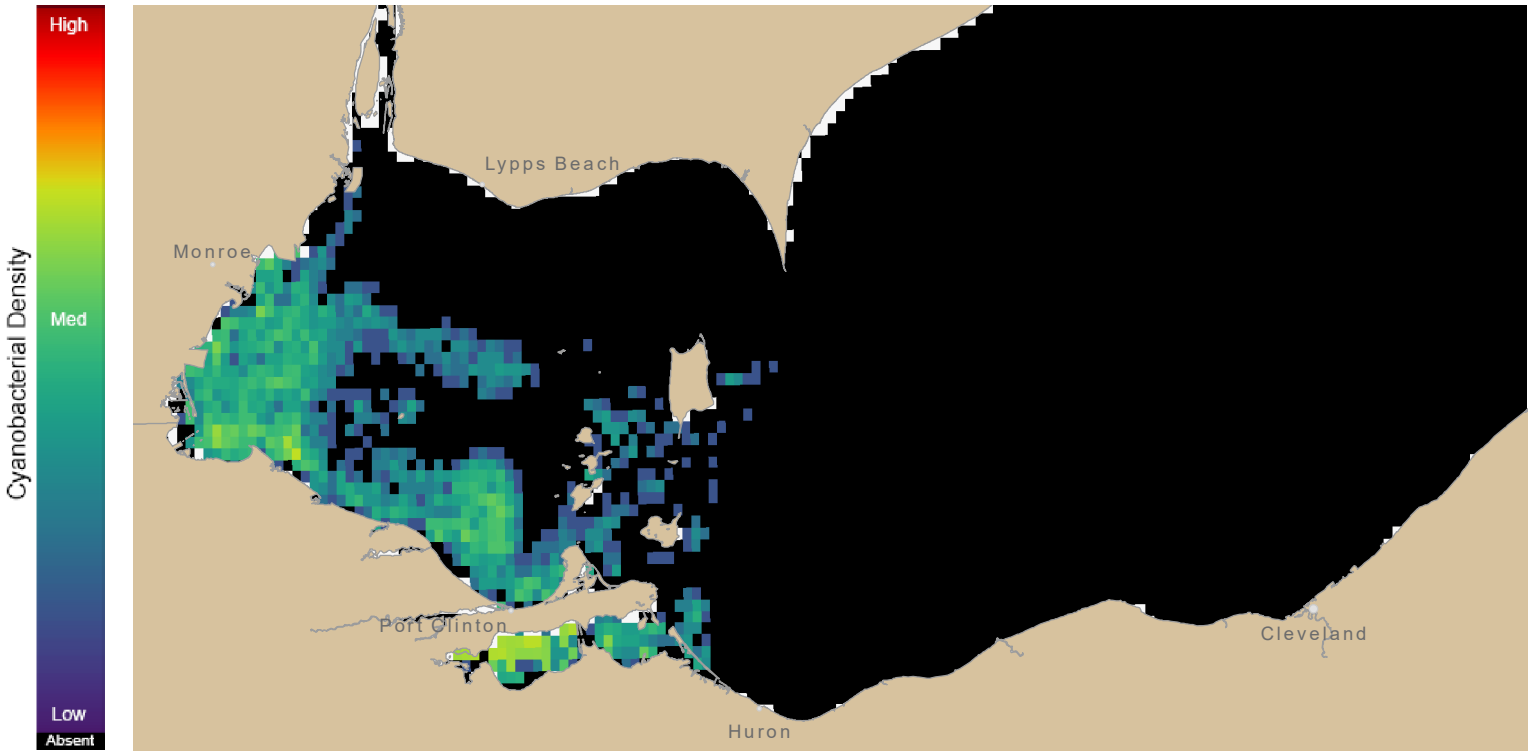


Figure 3. Nowcast position of bloom for 29 August, 2019 using LEOFS modelled currents to move the bloom from the 28 August, 2019

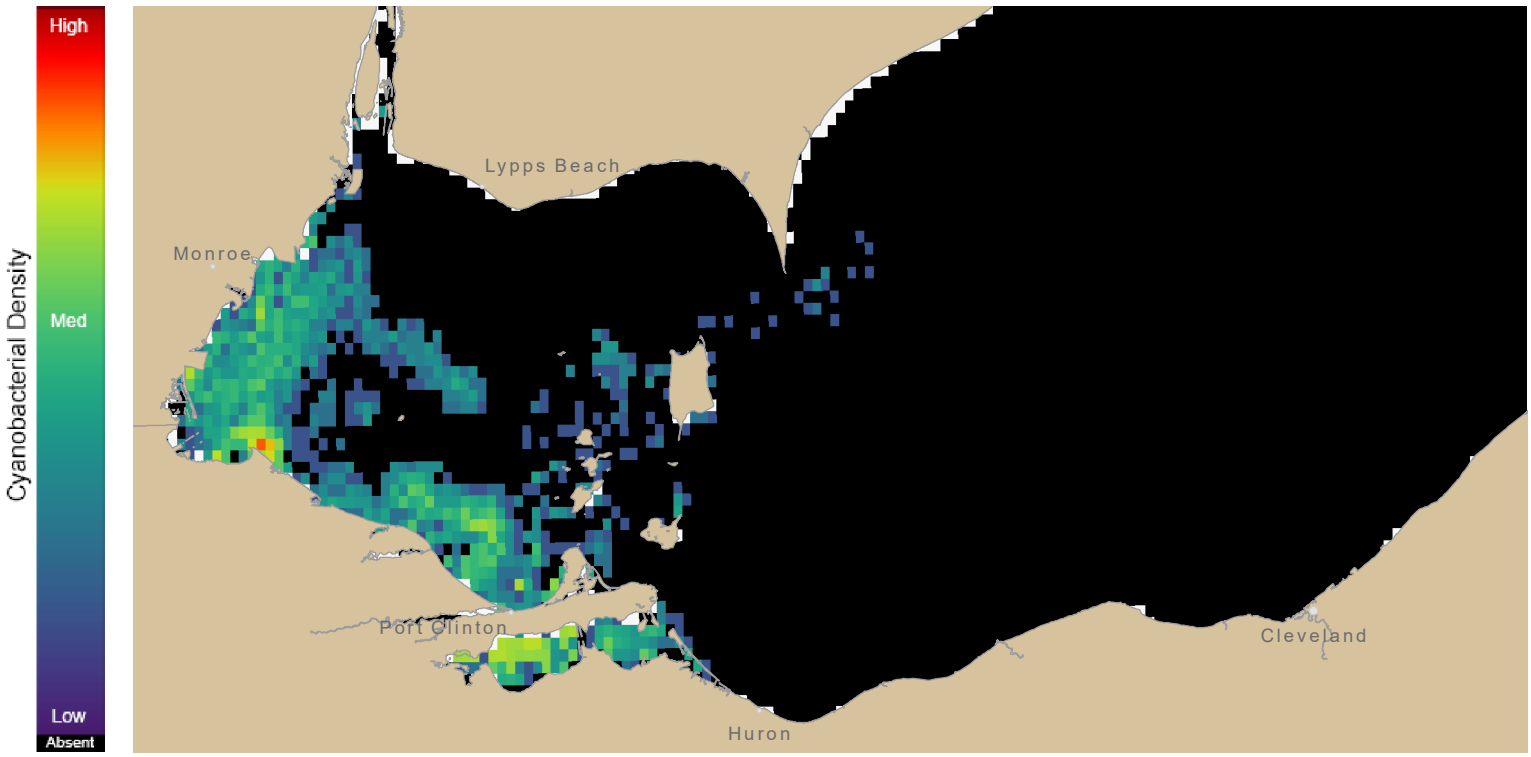
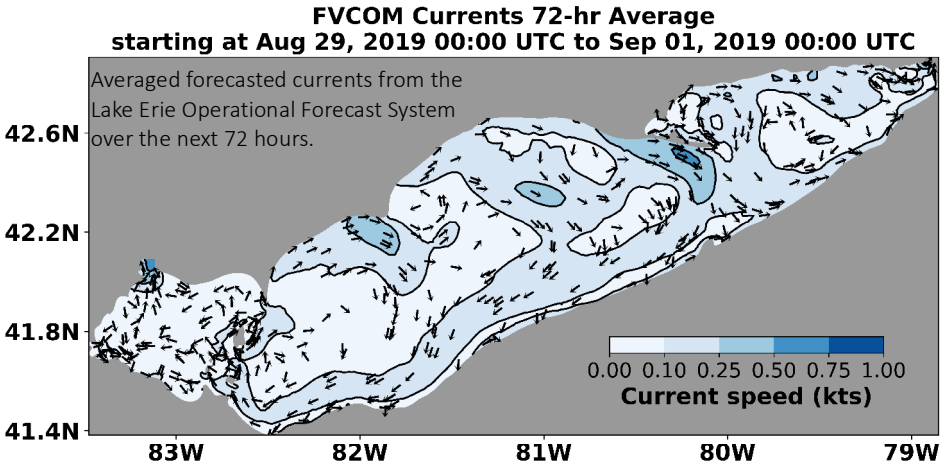


Figure 4. Forecast position of bloom for 01 September, 2019 using LEOFS modelled currents to move the bloom from the 28 August, 2019



For more information and to subscribe, please visit the NOAA HAB Forecast page: https://tidesandcurrents.noaa.gov/hab/lakeerie.html